

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A redirection technique based control method for Internet contents providing services in a system wherein a user computer receives digital contents, which are provided by a contents provider web server, through a web page provided by an intermediary web server through the Internet and a redirection system is disposed between the intermediary web server and the contents provider web server, said method performed by the redirection system comprising:

(a) instead the intermediary web server; transmitting a request from the user computer received through the web page, to the contents provider web server, and collecting a hyper-text markup language (HTML) document which the contents provider web server provides in response to the request;

(b) reconstructing the HTML document, by converting relative path uniform resource locators (URLs) of the contents such as a variety of form tags, search common gateway interfaces (CGIs), images, icons, etc. contained in the HTML document, into absolute path URLs and when necessary, further performing additional conversion; and

(c) converting all form tags and hyperlink tags in the HTML document so as to be marked with the redirection agent of the redirection system and transmitting a converted HTML document to the user computer,

wherein contents providing services are provided with the redirection system continuously retaining the control right on the web service of the contents provider web server for the user computer.

2. (Original) The control method of claim 1, wherein in the conversion of the hyperlink tags in the step (c), user authentication and session identification (ID) are given to the head part of each hyperlink tag, and if service is provided, a common gateway interface (CGI) program of the redirection agent, having a redirection processing function for all hyperlinks contained in an HTML document provided by the contents provider server, is added to the head part of each

hyperlink tag, and original URLs are converted into a parameter form.

3. (Original) The control method of claim 1, wherein in the conversion of the form tags in the step (c), the form action part of each form tag is replaced by a form transmission CGI program of the redirection agent, having a redirection processing function for all form transmissions in the HTML document, and the original action URL is added to a form input tag together with service ID registered in the web service profile information of the contents provider web server.

4. (Original) The control method of claim 1, further comprising the step of performing management, registration, deletion, and modification of control rules, absolute path conversion rules, and limits on use frequency that are registered in order to secure a control right by using a redirection technique.

5. (Original) A redirection technique based control system for Internet contents providing services in a system wherein, a user computer receives digital contents, which are provided by a contents provider web server, through a web page provided by an intermediary web server through the Internet, said control system, disposed between the intermediary web server and the contents provider web sever, comprising:

a redirection agent unit which operates in the form of a common gateway interface (CGI) program on the intermediary web server, communicates with a redirection server, requests again a document, which is requested by the user computer through the web page of the intermediary web server, to the contents provider server through the redirection server, receives a document of the contents provider server through the redirection server, performs additional conversion of the document, reconstructs the hyper-text markup language (HTML) document for differentiated services, and then transmits the final HTML document to the web browser of the user; and

the redirection server which is always in a waiting state in preparation for a call, and if the redirection agent unit makes a call and requests a document of a specific web service, in response to this, accesses a target contents providing web server and requests the document, receives contents provided by the target contents providing web server, performs conversion of

the contents, and then transmits the contents to the redirection agent unit.

6. (Original) The control system of claim 5, wherein the redirection agent unit comprises a first program which provides first redirection service, a second program which gives user authentication and session ID, and if the service is provided, performs redirection processing for all hyperlinks contained in an HTML document provided by the contents provider server, and a third program which performs redirection processing for all form transmission in the HTML document, as the CGI programs.

7. (Original) The control system of claim 5, wherein the redirection agent unit further comprises: a web management tool which registers in a database and manages the web service of a target contents provider web server to be provided as differentiated services through the redirection system; and a specific converter which, based on redirection conversion tags on exceptional events registered in the web management tool, performs conversion for exceptional tags, which are not standardized and an automatic document conversion module is not able to process, so that control right is retained.

8. (Original) The control system of claim 7, wherein the redirection agent unit further comprises a parser unit which if an HTML document provided by the web service contains a character string satisfying the condition of a parsing tag registered through the web management tool, replaces the character string with the contents written in a parser in order to provide additional application services.

9. (Original) The control system of claim 7, wherein the registration item of the web management tool comprises at least one or a combination of items, including URL information to access target web services, authentication information when fee-charging contents are provided, and when conversion is needed to provide differentiated services, parsing tags to distinguish a part to be converted in an HTML document, and document transformation parser information, and redirection conversion tags for exceptional events.

10. (Original) The control system of claim 5, wherein the redirection server unit comprises at least: a virtual hypertext transfer protocol (HTTP) agent which accesses the target contents

providing web server, requests a document in a GET or POST method, collects the document, and stores the collected document in a cache area for each user; an HTML converter which analyzes the contents of the HTML document which is collected and temporarily stored in the cache directory for each user by the virtual HTTP agent, and automatically converts all contents defined by relative URLs among tags such as 'img', 'link', 'href', etc. in the document, into absolute URLs; and a redirection marker which marks the redirection agent unit in the form tag and hyperlink parts so that the redirection system continuously retains the control right over all form tags and hyperlink tags in the HTML document temporarily stored before the document is transmitted to the user by the redirection agent, even though the user clicks on form transmission and hyperlinks.

11. (Original) The control system of claim 10, wherein the redirection marker performs conversion of the hyperlink tags by which user authentication and session identification (ID) are given to the head part of each hyperlink tag, and if service is provided, a common gateway interface (CGI) program of the redirection agent, having a redirection processing function for all hyperlinks contained in an HTML document provided by the contents provider server, is added, and original URLs are converted into a parameter form.

12. (Original) The control system of claim 10, wherein the redirection marker performs conversion of the form tags by which the form action part of each form tag is replaced by a form transmission CGI program of the redirection agent, having a redirection processing function for all form transmissions in the HTML document, and the original action URL is added to a form input tag together with service ID registered in the web service profile information of the contents provider web server.

13. (Original) The control system of claim 10, wherein the redirection server unit further comprises: a user session management which grants, maintains, and manages a session ID to a user using the redirection system; a cache area management which generates an independent cache directory for each user, and maintains and manages the directories till the user finishes the session of the redirection system; and a target web site session management which maintains and manages session information such as authentication information, cookie, etc. of the web service of the target contents providing web server accessed by the virtual HTTP agent and if there are

continuous requests for documents, maintains the connection.

14. (Currently Amended) The control system of ~~any one of~~ claims 10 ~~and 13~~, wherein the redirection server unit further comprises: a listener which is always waiting for a request from the redirection agent, and if there is a request, allocates a spare thread to handle the request; a request analyzer which analyzes the command and parameters requested by the redirection agent, determines the contents to be processed by the server, and calls related modules; and a virtual agent loader which in order to request web service to the web site of the target contents providing web server, writes a script for calling the virtual HTTP agent module and makes a call for the virtual HTTP agent.

15. (New) The control system of ~~any one of~~ claims 10 ~~and~~ 13, wherein the redirection server unit further comprises: a listener which is always waiting for a request from the redirection agent, and if there is a request, allocates a spare thread to handle the request; a request analyzer which analyzes the command and parameters requested by the redirection agent, determines the contents to be processed by the server, and calls related modules; and a virtual agent loader which in order to request web service to the web site of the target contents providing web server, writes a script for calling the virtual HTTP agent module and makes a call for the virtual HTTP agent.